Installation and operating instructions

Residual Current-operated
Circuit Breakers with overcurrent
protection (RCBO) Type DS251 and DS271

Protection against unintentional direct touch
acc. to EN 60529, IEC 529.
Mounting and dismounting only allowed by
an authorized electrician.

Attention: For fitment on BS aluminium profile
it is necessary to break out ONE only profile
clip per RCBO to be fitted. (not two)

3. Connection:
The phase (L) and neutral (N) from the load cir-
cuit are connected to the two upper terminals.
The "flying" neutral supply lead is for the
connection to the source neutral supply and
the white “flying” functional earth supply lead is
for connection to earth (PE).
Care should be taken to ensure a good, se-
cure connection to the conductor. Maximum
screwdriver torque 3 Nm.

1. Technical data: see printing on device

2. Mounting:
Installation in the desired position by means of
snap-on fastening to DIN-rails according to EN
60 715, 35 mm or alu-profile for application e.g.
in consumer units and distribution boards.

4. Operation:
The DS251 and DS271 are switched ON and
OFF by means of the black switch handle.

5. Functional test:
For the functional test the switch must be in the
ON ("I") position and the white test pushbutton
has to be pressed. The RCBO must trip imme-
diately, the black switch handle jumps to the
lower position with the switch indication O-OFF.
The functional test should be repeated monthly, RCBO must trip.

6. Testing the protective measures:
As well as the functional test of the RCBO, the effectiveness of the protective measures should be tested for compliance with the relevant specifications. The maximum permissible earthing resistance for residual current-operated protective switching is:

<table>
<thead>
<tr>
<th>Max. permissible touch voltage $U$, a.c.</th>
<th>Max. permissible earthing resistance with rated residual operating current $I_{\text{sw}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 mA</td>
</tr>
<tr>
<td>25 V</td>
<td>2500 $\Omega$</td>
</tr>
<tr>
<td>50 V</td>
<td>5000 $\Omega$</td>
</tr>
</tbody>
</table>

7. Insulation test:
The devices DS251 and DS271 must be disconnected before carrying out insulation tests. If insulation testing is carried out on the incoming supply side of the unit, the functional earth must also be disconnected in order to avoid measurements errors.
An additional label is supplied.
This label should be displayed in a prominent position.

8. Cleaning:
RCBO's which may have become soiled during assembly work in the switchboard can be cleaned with a damp, soapy cloth. On no account should corrosive or similar solvents be used.

9. Faults:
SACE Residual current operated circuit Breakers with integral Overcurrent protection (RCBO) are high quality RCBO's which are subjected to careful adjustment and testing in the factory.

In the event of damage (e.g. due to transport or storage) no repairs should be undertaken. If the RCBO trips immediately when being commissioned, a check should be made for connections to earth in the downstream electrical circuits and the appliances connected to them. Any insulation faults between the neutral conductor and the protective conductor should be eliminated.
If the RCBO does not trip during the first functional test, a check should then be made as to whether the test circuit has been correctly connected. If the installation is correct and the RCBO continues to trip or if the functional test has not been successful the RCBO must be replaced.

10. In case of opening the RCBO, the right to claim under guarantee expires.